

Clean copies of the claims as amended in this document are provided below — following the signature page.

Kindly change claims 3 through 5, and claims 7, 66 and 67; and also add new claims 80 through 96, all to read as follows, newly inserted words being presented underscored, thus, and deleted words being presented in square brackets [thus]. For the Examiner's convenience, the new claims are inserted in the claim sequence at the points where proposed — namely, new 80 through 86 following claim 2; new 87 and 88 following claim 7; and 89 through 96 following 73.

1 80. (new, to follow claim 2) The projector of claim 2,
2 further comprising:
3 means for also incorporating blue and green laser light
4 into the picture beam; and
5 separate, additional reflective liquid-crystal light
6 valves for modulating the blue and green light respectively.

1 81. (new, to follow claim 80) The projector of claim 80,
2 wherein:
3 said light valve also receives blue and green laser
4 light for modulation, within the same light valve.

1 82. (new, to follow claim 81) The projector of claim 2,
2 further comprising:
3 means for scanning the beam across a face of the light
4 valve during projection of each image, rather than flooding
5 the entire face substantially simultaneously.

1 83. (new, to follow claim 82) The projector of claim 82,
2 further comprising:
3 means for also incorporating blue and green laser light
4 into the picture beam; and
5 separate, additional reflective liquid-crystal light
6 valves for modulating the blue and green light respectively.

1 84. (new, to follow claim 83) The projector of claim 82,
2 wherein:
3 said light valve also receives blue and green laser
4 light for modulation, within the same light valve.

1 85. (new, to follow claim 84) The projector of claim 82,
2 wherein:
3 the laser apparatus comprises no solid-state lasers,
4 but rather exclusively lasers of gas type.

1 86. (new, to follow claim 85) The projector of claim 2,
2 wherein:
3 the laser apparatus comprises no solid-state lasers,
4 but rather exclusively lasers of gas type.

1 3. The projector of claim 86 [1], wherein:
2 said apparatus projects a beam of wavelength between
3 about 635 and 650 nanometers.

1 4. (amended) The projector of claim 1, wherein:
2 said apparatus projects a beam of wavelength substan-
3 tially [about] 647 nanometers.

1 5. The projector of claim 4 [1], wherein:
2 the image is a moving picture.

1 7. The projector of claim 6, wherein:
2 the further laser apparatus projects substantially cyan
3 native laser light with the blue or green light, or both.

1 87. (new, to follow claim 7) The projector of claim 6,
2 further comprising:
3 means for also incorporating the blue and green laser
4 light into the picture beam; and
5 separate, additional reflective liquid-crystal light
6 valves for modulating the blue and green light respectively.

1 88. (new, to follow claim 87) The projector of claim 6,
2 wherein:
3 said light valve also receives the blue and green laser
4 light for modulation, within the same light valve.

1 66. (amended) A laser projection system for forming an
2 image on an irregular projection medium having portions at
3 distinctly differing distances from the projector; said
4 system comprising:
5 laser apparatus for projecting a picture beam that
6 includes laser light;
7 a liquid-crystal light valve for impressing an image
8 onto the beam; and
9 means for projecting the beam from the light valve,
10 with said impressed image, onto such irregular projection
11 medium as a show for an audience.

1 67. The system of claim 66, wherein:

2 the irregular projection medium comprises one or more
3 projection media [is] selected from the group consisting of:

4
5 an interior of a dome, or other building having
6 internal surfaces that are not generally
7 normal to a projection direction,
8 an exterior of a dome, sculpture, monument, or
9 other structure having external surfaces that
10 are not generally normal to a projection
11 direction,

12 a waterfall,

13 a water fountain,

14 fog or a cloud,

15 ice,

16 a scrim in front of a curtain or screen,

17 a plurality of scrims in optical series,

18 one or more trees,

19 grass, vines or other foliage,

20 a hillside or other landscape, or other receding
21 surface, and

22 an array of people or other animals or other dis-
23 crete objects, or combinations thereof, at
24 diverse distances from the projecting means;
25 and

26
27 the projecting means display a protracted show on the
28 one or more projection media, for the audience.

1 89. (new, to follow claim 73) The projector of claim 66:
2 wherein the laser apparatus projects red laser light in
3 the picture beam; and
4 the light valve impresses red components of an image
5 onto the red laser light; and
6 further comprising:
7
8 means for also incorporating blue and green laser
9 light into the picture beam, and
10
11 separate, additional liquid-crystal light valves for
12 respectively impressing blue and green components
13 of the image onto the blue and green light.

1 90. (new, to follow claim 89) The projector of claim 66,
2 wherein:
3 said light valve receives laser light components of
4 three respective colors and impresses corresponding color
5 components of the image onto the three respective light com-
6 ponents, respectively, all within the same light valve.

1 91. (new, to follow claim 90) A laser projection system
2 for forming an image on an irregular projection medium
3 having portions at distinctly differing distances from the
4 projector; said system comprising:
5 laser apparatus for projecting a picture beam that
6 includes laser light;
7 a liquid-crystal light valve for impressing an image
8 onto the beam; and
9 means for projecting the beam from the light valve,
10 with said impressed image, onto such irregular projection
11 medium to form a substantially sharp image on such medium at
12 such distinctly differing distances.

1 92. (new, to follow claim 91) The system of claim 91,
2 wherein:

3 the irregular projection medium comprises one or more
4 projection media selected from the group consisting of:

5
6 an interior of a dome, or other building having
7 internal surfaces that are not generally
8 normal to a projection direction,
9 an exterior of a dome, sculpture, monument, or
10 other structure having external surfaces that
11 are not generally normal to a projection
12 direction,
13 a waterfall,
14 a water fountain,
15 fog or a cloud,
16 ice,
17 a scrim in front of a curtain or screen,
18 a plurality of scrims in optical series,
19 one or more trees,
20 grass, vines or other foliage,
21 a hillside or other landscape, or other receding
22 surface, and
23 an array of people or other animals or other dis-
24 crete objects, or combinations thereof, at
25 diverse distances from the projecting means;
26 and

27
28 the projection means form the substantially sharp image
29 on substantially each element of the selected one or more
30 media.

1 93. (new; to follow claim 92) A laser projector
2 comprising:
3 laser apparatus for projecting a picture beam that
4 includes visible laser light of wavelength longer than 640
5 nanometers; and
6 a reflective liquid-crystal light valve for modulating
7 the beam with a desired image.

1 94. (new; to follow claim 93) The projector of claim 93,
2 wherein:
3 said apparatus projects a beam of wavelength substan-
4 tially 647 nanometers.

1 95. (new, to follow claim 86) The projector of claim 93:
2 wherein the light valve impresses red components of an
3 image onto the laser light of wavelength longer than 640
4 nanometers; and
5 further comprising:
6
7 means for also incorporating blue and green laser
8 light into the picture beam, and
9
10 separate, additional liquid-crystal light valves for
11 respectively impressing blue and green components
12 of the image onto the blue and green light.

1 96. (new, to follow claim 95) The projector of claim 93,
2 wherein:
3 said light valve receives laser light components of
4 three respective colors and impresses corresponding color
5 components of the image onto the three respective light com-
6 ponents, respectively, all within the same light valve.

CLEAN COPIES of the amended AND NEW claims:

1 80. (new, to follow claim 2) The projector of claim 2,
2 further comprising:
3 means for also incorporating blue and green laser light
4 into the picture beam; and
5 separate, additional reflective liquid-crystal light
6 valves for modulating the blue and green light respectively.

1 81. (new, to follow claim 80) The projector of claim 80,
2 wherein:
3 said light valve also receives blue and green laser
4 light for modulation, within the same light valve.

1 82. (new, to follow claim 81) The projector of claim 2,
2 further comprising:
3 means for scanning the beam across a face of the light
4 valve during projection of each image, rather than flooding
5 the entire face substantially simultaneously.

1 83. (new, to follow claim 82) The projector of claim 82,
2 further comprising:
3 means for also incorporating blue and green laser light
4 into the picture beam; and
5 separate, additional reflective liquid-crystal light
6 valves for modulating the blue and green light respectively.

1 84. (new, to follow claim 83) The projector of claim 82,
2 wherein:

3 said light valve also receives blue and green laser
4 light for modulation, within the same light valve.

1 85. (new, to follow claim 84) The projector of claim 82,
2 wherein:

3 the laser apparatus comprises no solid-state lasers,
4 but rather exclusively lasers of gas type.

1 86. (new, to follow claim 85) The projector of claim 2,
2 wherein:

3 the laser apparatus comprises no solid-state lasers,
4 but rather exclusively lasers of gas type.

1 3. The projector of claim 86, wherein:

2 said apparatus projects a beam of wavelength between
3 about 635 and 650 nanometers.

1 4. (amended) The projector of claim 1, wherein:

2 said apparatus projects a beam of wavelength substan-
3 tially 647 nanometers.

1 5. The projector of claim 4, wherein:

2 the image is a moving picture.

1 7. The projector of claim 6, wherein:
2 the further laser apparatus projects substantially cyan
3 native laser light with the blue or green light, or both.

1 87. (new, to follow claim 7) The projector of claim 6,
2 further comprising:
3 means for also incorporating the blue and green laser
4 light into the picture beam; and
5 separate, additional reflective liquid-crystal light
6 valves for modulating the blue and green light respectively.

1 88. (new, to follow claim 87) The projector of claim 6,
2 wherein:
3 said light valve also receives the blue and green laser
4 light for modulation, within the same light valve.

1 66. (amended) A laser projection system for forming an
2 image on an irregular projection medium having portions at
3 distinctly differing distances from the projector; said
4 system comprising:
5 laser apparatus for projecting a picture beam that
6 includes laser light;
7 a liquid-crystal light valve for impressing an image
8 onto the beam; and
9 means for projecting the beam from the light valve,
10 with said impressed image, onto such irregular projection
11 medium as a show for an audience.

1 67. The system of claim 66, wherein:

2 the irregular projection medium comprises one or more
3 projection media selected from the group consisting of:

4
5 an interior of a dome, or other building having
6 internal surfaces that are not generally
7 normal to a projection direction,
8 an exterior of a dome, sculpture, monument, or
9 other structure having external surfaces that
10 are not generally normal to a projection
11 direction,
12 a waterfall,
13 a water fountain,
14 fog or a cloud,
15 ice,
16 a scrim in front of a curtain or screen,
17 a plurality of scrims in optical series,
18 one or more trees,
19 grass, vines or other foliage,
20 a hillside or other landscape, or other receding
21 surface, and
22 an array of people or other animals or other dis-
23 crete objects, or combinations thereof, at
24 diverse distances from the projecting means;
25 and

26
27 the projecting means display a protracted show on the
28 one or more projection media, for the audience.

1 89. (new, to follow claim 73) The projector of claim 66:
2 wherein the laser apparatus projects red laser light in
3 the picture beam; and
4 the light valve impresses red components of an image
5 onto the red laser light; and
6 further comprising:
7
8 means for also incorporating blue and green laser
9 light into the picture beam, and
10
11 separate, additional liquid-crystal light valves for
12 respectively impressing blue and green components
13 of the image onto the blue and green light.

1 90. (new, to follow claim 89) The projector of claim 66,
2 wherein:
3 said light valve receives laser light components of
4 three respective colors and impresses corresponding color
5 components of the image onto the three respective light com-
6 ponents, respectively, all within the same light valve.

1 91. (new, to follow claim 90) A laser projection system
2 for forming an image on an irregular projection medium
3 having portions at distinctly differing distances from the
4 projector; said system comprising:
5 laser apparatus for projecting a picture beam that
6 includes laser light;
7 a liquid-crystal light valve for impressing an image
8 onto the beam; and
9 means for projecting the beam from the light valve,
10 with said impressed image, onto such irregular projection
11 medium to form a substantially sharp image on such medium at
12 such distinctly differing distances.

1 92. (new, to follow claim 91) The system of claim 91,
2 wherein:

3 the irregular projection medium comprises one or more
4 projection media selected from the group consisting of:

5
6 an interior of a dome, or other building having
7 internal surfaces that are not generally
8 normal to a projection direction,

9 an exterior of a dome, sculpture, monument, or
10 other structure having external surfaces that
11 are not generally normal to a projection
12 direction,

13 a waterfall,

14 a water fountain,

15 fog or a cloud,

16 ice,

17 a scrim in front of a curtain or screen,

18 a plurality of scrims in optical series,

19 one or more trees,

20 grass, vines or other foliage,

21 a hillside or other landscape, or other receding
22 surface, and

23 an array of people or other animals or other dis-
24 crete objects, or combinations thereof, at
25 diverse distances from the projecting means;
26 and

27
28 the projection means form the substantially sharp image
29 on substantially each element of the selected one or more
30 media.

1 93. (new; to follow claim 92) A laser projector
2 comprising:
3 laser apparatus for projecting a picture beam that
4 includes visible laser light of wavelength longer than 640
5 nanometers; and
6 a reflective liquid-crystal light valve for modulating
7 the beam with a desired image.

1 94. (new; to follow claim 93) The projector of claim 93,
2 wherein:
3 said apparatus projects a beam of wavelength substan-
4 tially 647 nanometers.

1 95. (new, to follow claim 86) The projector of claim 93:
2 wherein the light valve impresses red components of an
3 image onto the laser light of wavelength longer than 640
4 nanometers; and
5 further comprising:
6
7 means for also incorporating blue and green laser
8 light into the picture beam, and
9
10 separate, additional liquid-crystal light valves for
11 respectively impressing blue and green components
12 of the image onto the blue and green light.

1 96. (new, to follow claim 95) The projector of claim 93,
2 wherein:
3 said light valve receives laser light components of
4 three respective colors and impresses corresponding color
5 components of the image onto the three respective light com-
6 ponents, respectively, all within the same light valve.